



Acoustic signatures of ships and their inclusion in underwater traffic noise prediction models.

Michael Taroudakis¹, Emmanuel Skarsoulis
Institute of Applied and Computational Mathematics, FORTH, N. Plastira 100, 70013 Heraklion, Crete, Greece,

¹ also, Department of Mathematics and Applied Mathematics, University of Crete, Heraklion, Greece

Abstract

The paper presents a review of recent approaches in measuring acoustic signatures of ships under the intention of including them as source excitation functions in underwater traffic noise prediction models. A brief presentation of the scope of these models under the framework of the European Directives for the monitoring of the continuous low frequency noise in European waters will be made, followed by a discussion on the basic requirements for a reliable prediction of the noise levels from the acoustic source perspective. Some of the existing ship signature measurement standards for research purposes will be presented and their significance in obtaining source excitation functions representing actual noise emission characteristics from ships will be discussed.